

April, 1997

By the mid-nineteenth century, at the height of their power, the western European nations had so conspicuously differentiated themselves from the rest of the civilized world and, by that power-based distinction, so attracted the attention of the other major civilized cultures as to generate among the latter frantic attempts to get "modernized", namely to get westernized, to imitate the "West", totally or partially (just that part which generates "power"). The West did not attract, one should be clear, by means of what are conventionally considered "culture": literature and philosophy, etc.; but with their "power": in the foremost military might, and behind it a whole complex of institutional, scientific, and industrial achievements and establishments. Admiration and appreciation by the non-West for Western "culture" was secondary and posterior. Now what was the source of all this "might", of this whole complex that generated for the West so much power? Empiricism, no doubt, a product in the making since what Foucault termed as the "age classique". A time when the newly re-constituted nation-states of Western Europe started to exercise ever-increasing systematic control over their population (Foucault's bio-pouvoir) and over nature for the purpose of the production of power. Power-and-control is the other face of empiricism. But whence empiricism?

Not simply since the Middle-Age, not even since the classical Mediterranean period. Empiricism is a certain perspective, a certain *quadrillage* (to use Foucault's term) cast upon reality, but no more than one perspective among many others. A more differentiated perspective, however, in comparison with others: in

fact, it is probably the most differentiated so far known to us. Empiricism is the culmination-point of the history of the differentiation of human consciousness, which constitutes the structure of World-History.

The more differentiatedness of the empiricist perspective does not imply any intellectual superiority; it is precisely in the eyes of the empiricists that such ancient wisdoms as for example Greek philosophy most conspicuously gets mis-understood, rather in the manner in which the Greek mystic philosophers got misunderstood by the Sophists. (Thus Eric Voegelin: "we may say that the [sophistic] age indeed has a streak of enlightenment in so far as its representative thinkers show the same kind of insensitiveness toward experiences of transcendence that was characteristic of the Enlightenment of the eighteenth century AD., and in so far as this insensitiveness has the same result of destroying philosophy -- for philosophy *by definition* has its center in the experiences of transcendence." [1]) One gains something, one loses something. In general, the empiricist thinking tends to be instrumental, mechanical, and shallow. It is essential to perceive differentiation just as it is: differentiation (and no more implied.)

To trace this longest strand of the universal differentiation of consciousness (which realizes itself in many of its strands) -- the particular path of differentiation leading, in the Indo-European strand, to the empiricist domination of the globe -- back to its *zero point*, i.e. not in the Medieval or classical Mediterranean period, but in the prehistoric time, during the

constitution of the "Indo-European": How to carry out this project of "genealogy of the modern (and global) consciousness"?

The process of differentiation of consciousness that has led to the contemporary westernization of the globe was set in motion already in the prehistoric time. The present paper attempts a preliminary tracing of this process to the prehistoric time of Proto-Indo-European by exhibiting therein the starting point of the empiricization of consciousness due to differentiation, through consideration of the principles involved in the evolution of Indo-European language. Hence this paper represents "another" attempt at the correlation between a language and the *Weltanschauung* of its speakers. ~~It is hoped that this work actually contains some substance as compared with many of its predecessors.~~

The starting point is the uniformity of the typological linguistic map of Eurasia (actually a portion of it; c.f. below) at the approximate time of 8000 BC. That is, the Proto-Indo-European language at its early stage did not stand out from other major languages of the field. The story consists in how it became so different from others.

The evolution of the linguistic typology of Eurasia since the approximate date of 8000 BC.: Looking backward up to 10,000 years ago one would very likely find a high degree of uniformity, in terms of language typology, among all the major language groups of the Eurasian continent: Indo-European, Altaic (included therein Japanese-Korean-Ainu), Uralic, Dravidian, Sino-Tibetan (the others not considered here). All seem to have been, at this juncture between late Mesolithic and Neolithic age, just before the

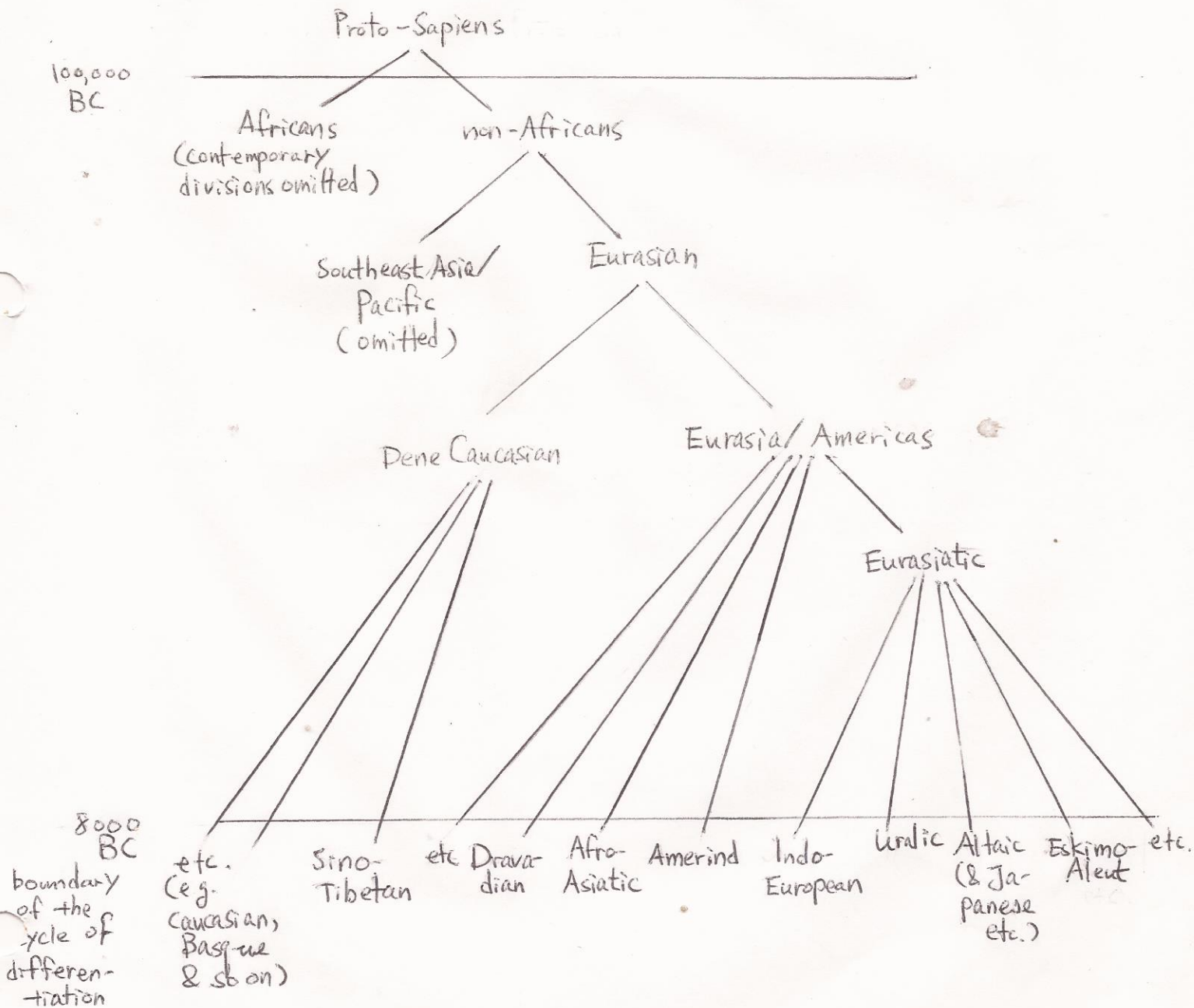
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c.f.
Collin Renfrew's
Archaeology
&
Language
(on the possible
time of unity,
6000 ~ 8000 B.C.)

irruption into civilization (of the area not considered here: the Near East), of the more or less consistent agglutinative OV type, with ergativity, or at least most probably of a pre-nominative/accusative structure. This uniformity in language-typology among the major populations of Eurasia may have been part of a larger cultural uniformity that was to be broken with the major inventions of the Meso/Neolithic period, notably agriculture. (e.g. Mircea Eliade: " Les progrès réalisés pendant le Mesolithique mettent fin à l'unité culturelle des populations paléolithiques et déclenchent la variété et les divergences qui deviendront dorenavant la principale caractéristique des civilisations." [2]) (p.46)

From this state of primeval and approximate uniformity up to the present day divergence and variety found across the contemporary members of these major language families one complete (universal) cycle of differentiation of language, -- manifesting that of consciousness, -- may be delimited, which, though active in every group, has accomplished itself most completely and/or conspicuously in two sites of the Eurasiatic whole: in Indo-European, in many of its contemporary members, and in Sino-Tibetan, in the Chinese languages.

This one complete cycle [3] of the differentiation of language (in which one corresponding complete cycle of differentiation of consciousness is asserted), leading, in the westerly IE (Indo-European) line, to the modern empirical consciousness, -- this linguistic cycle is characterized, on the surface level or typologically, by the shift from the structure of the agglutinative and ergative OV type to that of the isolating and

nominative/accusative VO type, which shift may summarily be grasped as a "reversal": that is, the result of differentiation on the surface level is, simply, a reversing of the original structure. (Note that Merritt Ruhlen's universal genealogical tree of human language families is presupposed here [*The Origin of Language*, p.193] [4]:



The Philosophy of the Differentiation of (in) language:

As said, the differentiation of language accomplishes itself in 2 shifts (reversals): that from ergativity to nominative/accusative structure; and that from OV (object-verb) word-order to VO.

A.) Shift/reversal in word-order as manifestation of differentiation; or word-order as measure of degree of differentiation:

Here through a synchronic study of the syntactic constructions of the contemporary OV and VO languages the principle may be illustrated in accordance with which relative compactness and differentiation may be measured by the word-order of the language and which will then have prepared the path for the diachronic study of the historical process of differentiation of language.

As a matter of general principle, a word-order of the verb-final type (OV) makes on consciousness an impression of relative compactness and that of the verb-precedent type (VO, either SVO or VSO) the impression of greater differentiation. This fact (concerning differentiation and compactness) applies equally to the other word-order parameters correlated in general with these two respective principal parameters; hence having for underlying determinant condition an experiential compactness are such word-orders as adjective-noun (AN), genitive-noun (GN), postposition as adposition, prenominal relative (relative construction preceding the noun:RN), strong tendency toward suffixing, post-(main)verbal auxiliary, and standard of comparison preceding the comparative ("than he bigger"), all of high correlation with OV main-clausal

(i.e. object-verb) word-order; whereas manifesting experiential differentiation are: noun-adjective (NA), noun-genitive (NG), preposition rather than postposition, postnominal relative (NR), tendency toward prefixing, preverbal auxiliary, and standard of comparison after the comparative, all of a general correlation with VO main-clausal (verb-object) order. Generalization of these phenomena of word-order allows one to see that an experiential compactness tends to generate for surface structure a condition of *determinant* preceding *determine* [5] (or adjunct-head, dependent-head, modifier-head): OV, AN, GN, RN, VAux, etc; and that, on the other hand, differentiation of this experiential compactness will in the main produce a reversal of this condition, that is *determine* in precedence over *determinant* [6] (head-adjunct, head-dependent, head-modifier): VO, NA, NG, NR, AuxV, etc.

Now how is the OV typology indicative of experiential compactness and the VO typology indicative of a differentiation of that compactness? We start with the position of the verb in relation to its object, that is, the principal parameter in word-order typology.

First, the object-verb order, especially languages with sentence-final position for the (finite) verb: languages of this type (OV) display, in contradistinction to those of the VO type, an important characteristic of experiential compactness in having the principle of *holism* guide the formation of their syntax, such that a certain wholeness is always produced in their speech by means of postponence, until the end of the sentence, of the most essential element of syntax, usually the (finite) verb. One comes to explicit

awareness of the phenomenal wholeness of a verb-final syntactic construction when finding it impossible to interrupt its *déroulement*: the postponement of the essential element, the verb, results in the condition that the chain of speech can never be cut short before its completion, that, in consideration of the grammatical fact "no verb, no complete thought and sentence," it should be syntactically incomplete, i.e. grammatically incomplete and often semantically unintelligible, until all intended elements -- subject, object(s), and every adverbial -- be expressed, all of which come pre-verbially through this rule of postponement. As the verb governs the completeness of syntax, its final position ensures the impossibility of the fragmentation of thought which is characteristic of the relative compactness of experience.

This holism illustrates the effect of what is at issue in the syntactic construction proper to experiential compactness: that the principal element is here not as yet so differentiated from its modifiers (hence from the entire sentence) as to stand independent of them, of the rest of the constituents of the syntax -- to stand, in Plato's term, *αὐτὸς κατ'αὐτὸν*: the non-independence or non-differentiation of the principal constituent of the syntax (the verb here) works the prevention of fragmentation of the syntactic whole, a fragmentation that is characteristic of VO syntaxes.

Consideration of examples will utilize sentences derived from Japanese and French, the most consistent OV and VO types respectively of the languages at my disposal. A typical Japanese sentence follows the pattern:

kanojo wa kinoo yuubinkyoku de shachoo ni tegami o dashita
that-girl TOP yesterday post-office LOC manager DAT letter ACC sent

"yesterday at the post-office she sent the letter to the manager"

(TOP= topic marker, DAT= dative postposition, LOC= locative, ACC= accusative)

(the verb *dashita* "sent" governs the grammatical completeness of the utterance: its unalterable sentence-final position (though the order of elements preceding it is flexible according to considerations of emphasis, etc.) guarantees the identity of grammatical completion and completion of the intention of the speaker (semantic completion).

This identity reflects the non-independence of *dashita* from the chain of modifiers preceding it; should the verb be positioned prior to its modifiers, it would stand independent of them as the chain of modifiers would then become extraneous for the *grammatical* (in contradistinction to semantic) completion of the verb and of the sentence (the grammatical completion of the verb and of the sentence being identical). But here it stands last, and thus remains, at the grammatical completion of the sentence, bound to them. This working shall be seen more clearly in syntactic constructions of the VO type.

German subordinate constructions also reflect the non-differentiation of the "principal" element, e.g. the auxiliary *haben* below (the auxiliary, not the so-called "main-verb", is the principal element in relation to the latter; c.f. below):

Ich weiss, dass die Frau in der Post den Brief gesandt hat

(This does not reflect the archaism of German subordinate clauses; while Japanese word-order is undoubtedly indicative of millennial

conservatism -- without the language being, considered as a whole, not just in respect to its syntax, a "primitive" language -- German OV subordinate structure, as W.P. Lehmann observes, was reintroduced under foreign influence, after the shift to VO structure. [*PIE Syntax*, p.116 and p. 246])

On the other hand a VO syntactic construction (with the verb preceding its object complement) generates for its principal constituent -- the verb -- a certain independence from its modifier(s), (the object complement, and sometimes also the adverbials) since -- keeping in mind the principal syntactic fact, that the verb is the necessary and sufficient component of a *grammatically* complete sentence -- the already grammatical completion of the sentence at the immediate appearance of the verb permits the termination of the expression of the rest (modifying the verb) and consequently works a liberation of the verb from them: that is, termination not damaging, from the formal, grammatical view-point, the syntactic completeness of the sentence. The result is the fragmentation of the sentence, which seems only to be an agglomeration of mutually independent parts not well integrated with one another. For example:

	1		2	
je vois		la femme		dans cette chambre
I see		the woman		in this room

From the formal point of view, that of the grammar, the production of speech may be interrupted at the second juncture (before "dans cette chambre" be expressed) -- and even at the first -- without destroying its grammatical completeness ("je vois" is already a complete sentence); the finite verb here does not have

the power of ensuring the integrity of the sentence that it reserves for itself in a typical OV language. So, in Japanese:

heya de kanojo o mita
room LOC that-woman ACC saw

"I saw the woman in the room": the less integrity of the VO sentence is the result of the grammatical completion of the verb by itself and without yet any attachment of modifiers (the object complement and adverbials) -- it stands, *αὐτὸς κατ'αὐτὸν*, as an independent grammatical unit, an advantage afforded by postposing its modifier(s) after it. This is proper to an experiential differentiation.

The other respective correlates of the OV and VO types also become intelligible in the light of this explicitation of the inner-working of verb-finality and verb-initiality.

Nominal modifying constructions: In OV languages nominal modifying constructions (l'élément secondaire/spécificateur) precede the noun they modify in accordance with the same principle of so postposing the essential/principal element as to preclude its independence from its modifiers, maintaining as a consequence the integrity or wholeness of the noun phrase. Hence proper to experiential compactness is a language that has prenominal relatives, prenominal adjectives and prenominal genitives; thus in Japanese:

arawareta hito wa, kireiina shojo no kao o mita
appeared(Past) man TOP beautiful girl GEN face ACC saw
"the man *who appeared* saw the face of the beautiful girl"

Hito ("man") does not stand independent or differentiated from its modifier *arawareta* ("[who] appeared") and *shojo* ("teenagegirl")

neither from *kireiina* ("beautiful"), since by coming after their modifiers their grammatical completion can only be completion-together-with the former. The non-(not-yet) differentiation of the noun from its modifying constructions is the property of experiential compactness.

In a consistent VO language then, the nominal modifiers come after the noun that they modify in accordance with the principle of so preposing the principal element as to generate its independence (as it stands already grammatically complete, *itself by itself*, without its modifiers having yet been attached to it) from the rest of the phrase -- the modifiers -- following upon it. Proper to experiential differentiation is thus a language such as French, virtually a mirror image of Japanese (ignoring for the moment its irregular enclitic pronouns), where postnominal relatives and genitives are always the case, and postnominal adjectives predominate most of the time:

l'homme qui apparait a vu le visage de la femme blonde

Again, at the moment of the utterance of "l'homme" and before the production of "qui apparait" that continues it interruption or termination is possible without damage to the grammatical completeness of the principal element here, "l'homme". The noun "l'homme" has been differentiated from its modifier "qui apparait" through the differentiation of consciousness.

Verbal auxiliaries: In an OV language verbal auxiliaries come after the "main" verb because they are, in fact, in relation to the latter, the "principal" elements and these "main" verbs merely modify them. The experiential compactness underlying the OV

typology then dictates the postponement of these principal elements- the auxiliaries -- until the last position of the sentence. e.g.

anta wa koko de dareka o ma'te iru no?
you TOP here LOC somebody ACC waiting is(=are) PARTICLE
"Are you waiting for somebody here?"

ano hito no kao o mi-tai desu
that man GEN face ACC see(ing) want(adjective) is(=am)
"I want to see his face"

boku wa omizutori o mi ni iku tsumori desu
I TOP omizutori ACC see(ing) DAT go intend(ing) is(=am)
"I intend to go to see (lit "go into the seeing of") Omizutori (a festival)" (tsumori = adjective)

In the progressive construction "you are waiting" "are" i.e. "are in the process of" is the principal element and "waiting" specifies that of which "you are in the process"; "what are you in the process of doing?" "I'm in the process of doing the 'waiting'"; in the same vein in "I want to see his face" "I want" represents the essential constituent of the sentence and "to see..." performs the function of modifying the former: "what do you want?" "I want to see"; and the same with "I intend..." In OV languages these "auxiliary" verbs (or its equivalent adjectival forms in Japanese), being the principal constituents of syntax, i.e. V, remain non-independent or un-differentiated from its modifiers -- the O, the infinitive (or its finite equivalent in Modern Japanese) being in this case the object complement for the "main" (the auxiliary) verb -- in being so postposed to them as to not have their grammatical completion without the latter's attachment.

In an VO language, where the principal element has been differentiated from its modifying, secondary element(s), the so-called "auxiliary" (i.e. the main verb, V) precedes the modifying

construction (O, in this case, the infinitive) so that it may be grammatically complete before the latter's appearance: "Je veux" or "Je peux" is already a grammatical completion before any "voir..." or "faire..." phrases announce themselves at the former's tail.

Again, the result is that the object verb-auxiliary of the OV type maintains a wholeness and that the reverse order of the VO type displays a degree of fragmentation.

The governing elements: In OV languages governing elements such as adpositons (prepositons or postpositions) and conjunctions follow respectively the governed noun and the governed clause, and unsurprisingly so since these governors, which are determinative for the meaning of the phrase or clause to which they belong and hence constitute the "essential" element thereof, must in the OV type obey experiential compactness and stay non-independent of that which they govern by remaining chronologically posterior to it. Thus in the Japanese examples *sensei ni* ("teacher-to", translating English "to [the] teacher") or *gakko kara* ("school-from"; translating "from school"), and

ano hito o heya de miru to
that man ACC room LOC see when
"when [I] see him in the room"

such governing elements as the postpositions *ni* and *kara* and the temporal conjunction *to*, when appearing, are always already bound to that which they govern; and this condition is ensured by their "postposition": note especially the un-fragmentability of the Japanese subordinate clause, how the object and the locative depend on the verb following them, which in its turn depends on the conjunction, in order to form a complete grammatical unit.

Needless to say: the counterparts of these OV governors in an VO language come in the "pre-position" ("au professeur": "quand il voit l'homme dans la chambre") for the reason that the VO language is more differentiated than OV and hence that prepositions and conjunctions precede that which they govern in order to remain differentiated (independent) from the latter. (Note the gradual increase in the possibility of termination as the French subordinate counterpart unfolds in time [remember to eliminate the subject, *il*, which is not required in Japanese].) The principle of OV typology is: the principal elements come after the modifying elements so as to form with them a less differentiated whole; and that for VO typology is: the principal elements precede their modifiers so as to form independent constituents (breaking up the wholeness of the sentence in the process).

A further prominent word-order parameter may be noted: the quoted speech or thought (etc) in relation to the verb of saying or thinking, etc. Since the quoted speech functions as the object and hence the modifier of the verb, it is naturally expected to precede in an OV language the verb of saying; e.g. in Japanese:

kare wa kanajo o mite. "sensei wa shinda no ka?" to kiita.
he TOP she ACC seeing, teacher TOP died PART INTERROG that asked
"he, seeing her, ask [her] if (that: *to*) the teacher was dead."
(PART = particle; INTERROG = interrogative particle)

This "... that he asks" construction proper to an OV language is, of course, the compact original for the differentiated VO "he asks that..." It is his great contribution to historical linguistics in general and Indo-European linguistics in particular that Winfred P. Lehmann should have recognized (*Proto-Indo-European Syntax*, 1974).

University of Texas Press, Austin and London.) an OV syntactic type, with all its correlates exemplified above by Japanese, for Proto-Indo-European, which was, by the time of the classical dialects, in the midst of a shift to VO syntactic type. He did not supply, however, a satisfactory reason for the IE shift-away from such a stable typology as is the OV type, which appears thus inexplicable; in the next section the differentiation, manifesting itself on the level of the surface forms as a reversal, occurring in the heart of the PIE language, is to be given for its eventual break with the Eurasiatic OV typology (for the portion of the continent considered here was at the time homogeneously characterized by OV languages) and for its subsequent reconstitution in VO syntactic type via an inflectional grammar.

15
B.) The break of IE with Eurasiatic OV typology

The typology of the proto-forms (at the retrospective limit of 8,000B.C.) for the major language families of Eurasia considered here (Indo-European, Uralic, Altaic-Japanese-Korean-Ainu, Dravidian, and Sino-Tibetan) is consistent: OV typology as exemplified (in general outline) by the afore-presented examples from Japanese, plus possible ergativity. Proto-Indo-European, the center of study here, has for its closest (first-degree) relatives Uralic and Altaic-Japanese-Korean-Ainu (and also Eskimo-Aleut and Chukchi-Kamchatkan, not considered here), and for its second-degree Dravidian (and also Afro-Asiatic, Kartvelian and Amerind, not considered here), and only for its third the Dene-Caucasian to which Sino-Tibetan belongs (and also Basque, Caucasian, Burushaski, Yeniseian, and Na-Dene). PIE must have departed from the North

Asian whole (Uralic, Altaic, etc.) only within the last 10,000 years, since Amerind (its second-degree relative) did not depart for America until 11,500 B.P. (Ruhlen, *The Origin of Language*, p.167). Given the close genetic link of PIE with North Asian languages, the OV typology reconstructed by Lehmann for PIE could be the result of recent common ancestry, of the fact that PIE had not for long separated from the Altaic-Uralic-Dravidian whole and maintained no more than a status of dialectal variation of especially the Altaic-Uralic at the time; but only structural considerations, which are sufficient in this study, will be given here, and speculation on geneticity merely noted thusly.

The attestations for the OV typology of the proto-forms are extracted from the two books by Bernard Comrie:

from *The World's Major Languages* (Edited by B. Comrie, 1984. Croom Helm, London and Sydney):

Proto-Dravidian: "Dravidian morphology is transparent, agglutinating and exclusively suffixal." (p.727) "Proto-Dravidian has a constraint that limits the number of finite verbs in a sentence to a maximum of one: that lone verb stands at the extreme end of the sentence and commands all other verbs within." (exactly the same as the Japanese verb-final pattern: c.f. the Japanese participial constructions.) "The basic word order in the proto-Dravidian sentence is subject-object-verb (SOV). In Dravidian, as in other rigid SOV languages, genitives precede the nouns they modify, main verbs precede auxiliaries and complements precede their matrix clauses. Though explicit nominal morphology allows some freedom of variation of word order, verbs stay at the end of

their clauses... The subject is a noun phrase inflected for the nominative or, in certain predictable cases, the dative case [indication of past ergativity; though the examples thereof given of modern Tamil indicate predicate-centrality, which must be assumed for PIE, c.f. below]"(p.728) The examples given in the text of modern Tamil, those of relatives and quoted sayings, follow in strict exactitude the Japanese patterns.

Proto-Sino-Tibetan: "With the exception of Karen, all of the Tibeto-Burman languages are postpositional SOV languages with predominantly agglutinative morphology... and this must also have been true of Proto-Sino-Tibetan." (p.806) And regarding the state of the language when Proto-Chinese separated from the Tibetan group: "Proto-Tibeto-Burman is now reconstructed with a split-ergative case marking and verb agreement system of the sort exemplified by the following Gyrong examples, in which third person but not first and second person transitive subjects are case marked (in the modern languages which retain this system the ergative marker is often identical to the instrumental and/or ablative postposition), while the verb shows pronominal concord with any first or second person argument, regardless of its grammatical role..." (p.806)

From *The Languages of the Soviet Union* (Bernard Comrie, 1981, Cambridge University Press, Cambridge):

"In typological perspective, it is in general the case that the more easterly Uralic languages adhere more closely to the canonical subject-object-verb (SOV) typology, i.e. like the Turkic languages, whereas the more westerly languages are close to the general

European type, in particular with subject-verb-object (SVO) as their basic word order... The usual explanation given for this situation is that Proto-Uralic was typologically similar to Turkic languages, and that the more westerly languages have come under strong Indo-European influence, leading to areal diffusion of SVO features." But he cautions: "There is really no evidence that Proto-Uralic was consistently SOV in typology, although it was probably more so than the Uralic languages currently spoken in the west of the area occupied by Uralic-speaking peoples, in particular the Balto-Finnic languages." (p.93) Hence the division within the Uralic whole between the more easterly and less differentiated languages with SOV agglutination and the westerly and more differentiated languages with SVO fusional type, whether the differentiation be due to internal development or to external influences. The examples cited in the text from the easterly Uralic languages consequently resemble very much their Japanese counterparts.

That Altaic on the whole is characterized by SOV agglutination is well known. "...there are many similarities among the three groups within Micro-Altaic [Turkic, Mongolian, Tungusic]. Many of these, however, are typological, for instance the agglutinative morphological structure using exclusively suffixation, the strict verb-final word order, with adjuncts always preceding their head, the use of numerous non-finite verb constructions, and such similarities could be found in many other languages of the world, e.g. Quechua in South America, the Dravidian languages in southern India." (p.39) "The Altaic languages show overall a very consistent

syntactic typology... Basically, this typology can be summarized by saying that an adjunct always precedes its head, i.e. adjectives and genitives always precede the head noun, noun phrase arguments always precede their verb." (p. 77) As for their relative constructions: "Traditionally, in the Altaic languages, there seems to have been no finite subordinate clauses of the Indo-European type, various nonfinite constructions being used instead..." to which pattern even Japanese relatives formerly conform, i.e. before dropping the participial relative verb in favor of a more simplified, finite verb. "...the most consistent verb-final patterns are found in the Turkic and Mongolian languages, while in Tungusic languages in general free order is found, although there is still a strong tendency for the finite verb to come sentence-finally" (p.79). Here then are present already traces of differentiation in Altaic (whether due to external influences or to internal development), conspicuous also within the Turkic group in their spoken traditions, which contrast with the conservatism of the written tradition. (p.80) The "conservative" SOV examples cited in the text resemble closely the Japanese examples given above. ↗

Lehmann's reconstruction of PIE syntactic order is briefly summarized in *The World's Major Languages* (ibid, p. 60) as follows: "Late PIE was most likely a subject-object-verb (SOV) language with attendant adjective + noun (good boy), genitive + noun (John's hat), standard + marker + adjective (John than bigger) order, postpositions (the world over), and the preposing of relative clauses (who I saw man). The reconstruction of these structural patterns is based on principles of typological inference developed

largely by W. Lehmann (e.g. 1974), who extended the concepts of word-order harmony formulated by J. Greenberg (1963) to historical syntax. According to these principles, there are major structural configurations in languages which are harmonious or compatible with each other... For example, if a language is SOV in its basic sentence pattern, it will also have postpositions; if it is SVO, it will have prepositions..."

a.) THE ORDER OF NOMINAL MODIFIERS

"If, as we have assumed, PIE was OV, we would expect attributive modifiers to be embedded before nouns, in accordance with the principle of modifier placement. Relative clauses would then precede nouns, as would attributive adjectives and genitives." [PIE Syntax, p.57. All later references to Lehmann are to this book.]

Hence, with regard to relative clauses: "While it was OV, PIE had preposed relative clauses without a marker. When it changed to the VO type [as during the time of the classical dialects], relative constructions come to be postposed and marked with a relative particle or pronoun." [ibid, p.68] A PIE sentence with a relative clause embedded therein would then, according to Lehmann, look like the following:

wiro- yowi- bher- wiro- derk-
man sheep carry man see
"he [the man] saw the man who carried the sheep"

plus the appropriate inflections (e.g. derk → dedorke: perfect) [p.13]. Compare this reconstructed PIE sentence with a Japanese translation:

ano hito wa inu o mote ita hito o mita
that man TOP dog ACC carrying was man ACC saw

Note that there is in this example no relative marker like the

English who/which or classical Greek $\delta\varsigma$ etc. Lehmann attributes the difficulty in PIE linguistics regarding the reconstruction of a relative marker for PIE (sometimes *yos, ya, yod and sometimes *kwi-, kwo-, etc) to its non-existence in PIE.

The evidence which Lehmann utilizes in support of such reconstruction comes mostly from the archaic layers of Hittite inscriptions and Vedic writings. I do not want to dwell on his examples. But one of his Hittite examples will have to be cited which contains the germs of issues relevant to the differentiation of PIE language that underlies its shift from OV structure to VO structure, for which Lehmann has only supplied the mechanisms and not the *raison d'être*. "...the old Hittite texts and the archaic and strophic hymns of the Rigveda reflect a language with far more OV characteristics than are proposed for the original IE language in such handbooks... PIE must be reconstructed as basically OV... Rather than by reconstructed texts, PIE may be represented by some of the most archaic Hittite materials, such as those found in the Chronicles and Laws, -- for example, the following sentence from the Chronicles (KBoIII 28, 17f):

attas-mas	harsani	d'ID-	ja	mekkes	papriskir
of-father-my	person-DAT	river-god	and	many	they-were-unclean
n-us	AB1	LUGAL	natta	huisnusket	
ptc.them	my-father	king	not	he-caused-to-live	

"my father, the king, had many of them killed who sinned with reference to the person of my father and the river-god."

In this passage both clauses have final position of the verb... as the translation suggests, the first clause may be taken as a relative, indicated as such simply by preposing... one of the

notable characteristics of OV languages. The verb forms are in accordance with OV structure [i.e. *they are agglutinative rather than inflectional*]; *huisnusket* contains a *nu* causative affix added to *huis-* "live", followed by the *-sk-* iterative-durative suffix, which is also found in *papriskir*. Literally, then, it means: "he continued causing to live"... the negative applies to the root *huis-*, not to the entire verb form. In this way the clause represents a construction earlier than the subjective system of PIE [-- i.e. an agglutinative construction comparable to that of Japanese or Turkish; and not yet the inflexional construction which transforms the PIE non-subjective agglutination into a subjective system -- where the verbal suffixes are dominated by the personal indexes through their fusion with the latter.] If the subjective domination had been in effect, the negative of this form would have meant "he was not causing to live" rather than "he was causing not to live", i.e. "he killed". Morphological constructions like *huisnusket* must be assumed for PIE, that is, *loosely constructed verb forms [agglutinative] in which the various affixes maintained their independence.*" (p.238-239)

PIE must have one time been a thoroughly agglutinative OV language so typical of the Eurasiatic languages of the time. This Japanese-like PIE then underwent a "leap in being", so to speak, or differentiation, and became VO in structure. During the transitional stage (the period of classical dialects) when the "principal" elements sometimes preceded the secondary elements and sometimes not, congruence devices such as gender uniting the constituents of a noun phrase, the relationship among which became

increasingly confusing, or number uniting the noun phrases and the verbs, were produced for PIE nouns, which have frequently been noticed to have had an "isolating" past (c.f. Kenneth Shields, Jr. *Indo-European Noun Inflection: a Developmental History*. Pennsylvania State University Press, 1982). When the shift was completed in the modern IE languages, nominal inflections were dropped, in accordance with their "uselessness". But as regards the reason for the shift to VO, Lehmann asserts: "I suggest that the major cause for the shift to a VO structure, as of complements and subordinate constructions from preverbal to postverbal position, was internal [as opposed to such external influences as can be exerted by neighbouring OV languages]. The shift to VO structure resulted from the development of the subjective quality of the late PIE verb." (p. 242) But the reason for the development of the subjective quality of PIE verb? Lehmann did not specify one. I propose that this development expresses an underlying differentiation of consciousness and is hence instrumental in illuminating the nature of differentiation.

Now why should nominal modifiers (relative clauses, adjectives, and genitives) have come, in the course of the development of PIE, to be postposed after the noun they modify? Lehmann explains that "[t]he postposed position [of nominal modifiers] would have been suggested by the postposed position of [verbal] complements." (p.244)

One of the examples that Lehmann employs to illustrate the possibility, now produced by the subjective dominance of IE verbs,

of changing verbal complements from preverbal to postverbal position, is a passage from Augustine's Confession (I.8):

nōn enim docēbant mē maiores hominēs, praebentes mihi verba
not for they-taught me older humans providing for-me words

certo aliquo ordine doctrinae sicut paulo post litteras...
(in)certain some order of-teaching as little later letters

"For older people did not teach me, furnishing me words in some certain order of teaching as [they did] a little later the letters..."

He remarks: "the 'subject' of *praebentes*... is clearly *hominēs*."

(p.242) The point is that "in contrast with Turkish and many other languages, [in IE] one element -- person -- has come to dominate other elements [of the complex of verbal suffixes] and also the entire clause, including complements." (p.95) Hence: "With such clarity of focus, sentences could have complements follow verbs as well as precede them" (p.242). Thus the complement moves from its position such as in Latin *piscatum ire* to that such as in Thucydides (5.35)

epeisan tous Athenaious hōste eksagein ek Pulou
they-persuaded the Athenians "so-that" to-pull-out from Pylos.

Messenious
Messenians

"They persuaded the Athenians to withdraw the Messenians from Pylos"

and is eventually extended into a *hōste* clause, such as in Xenophon (Anabasis 4.4.11)

epiptei khion apletos hōste apekrupse kai ta hopla kai
it-fell snow much so-that it-covered-over and the weapons and
tous anthropous
the men

(all examples cited by Lehmann, p.241-43).

The postposing of nominal and verbal modifiers is of course to

be explained here, over and above Lehmann's explanation, as the result of differentiation of the principal elements in both cases from the modifiers with which they have formerly formed a whole. But the question regarding the nature of this differentiation of the principal elements must be raised here: this differentiation reflects an increasing nominalization of the language, indicative in turn of the increasing empiricization of consciousness, of the emergent tendency to grasp phenomena substantively. And it is this process of the nominalization of language that is reflected in the development of the subjective quality of IE verbs.

"...the IE verb is characterized by a feature which Ernst Lewy has labeled *subjective*... This designation refers to the inclusion in the finite verbal forms of an indication for the actor or subject." (p.110)

The development of the subjective quality of IE verbs was carried through by means of the subsumption of independent verbal suffixes indicating mood and tense and like categories under the personal indicators (m, t, s, etc), so that composite forms, without independent and readily segmentable suffixes but formed of one "personal" ending expressing as well tense and mood and voice, arose in place of derivational forms (e.g. Japanese present *taberu*, "eats", passive *taberareru*, causative *tabesaseru*, passive of causative *tabesaserareru*, past *tabeta*, past passive *taberareta*). The effect of this fusion is illustrated by Lehmann:

"For the Vedic optative endings are composites with compound meanings that contrast as composites with other endings of the Vedic verbs, such as the subjunctive, imperative, and indicative.

On the other hand, each of the Turkish suffixes adds a distinct meaning to the verb form, as we may illustrate with an example of the Turkish potential *-bil-* (which is suffixed to the gerund form *-e-* of a root):

Insan *bunu* *bilmiyebilir*
person this know-not-POTENTIAL SUFFIX

The sentence means: "it is possible that a person doesn't know this"... If the suffixes formed a composite unit with a compound meaning like the Vedic endings, we might expect the meaning "it is not possible that a person should know this." *For, in the composite endings of PIE, one element affects other elements as well as the stem.* (p.95, emphasis added) Fusion, or the formation of composite endings, led PIE from agglutination to inflexion, and is, as said, the result of the dominance of the person suffix over all other suffixes. (p.94)

But "PIE itself includes indications that the verbal system reconstructed from the dialects was fundamentally modified at one point in its history. For a large number of "impersonal" verbs point to an earlier system in which the actor, or subject, is not expressed... Thus the Latin verb *paenitet* means "there is woe for..." rather than "he, she, it undergoes woe, is sorry." For more precise specification a pronoun is necessary, for example, *paenitet me* "I am sorry"... On the basis of such verbs, which are particularly prominent in reporting natural events, e.g. *pluit* "is raining", we may conclude that at an earlier time the IE verb was not subjective." (p.111)

Impersonal verbal expressions reflect a stage of

consciousness prior to that of the nominative/accusative with a necessary (even when merely implied) subject, and where the predicate is the dominant constituent of the sentence and where the subject is unnecessary: i.e it has not yet been differentiated out. Before PIE differentiated into a SVO nominative/accusative language (in its modern descendants), it was of the OV type, and therefore adhered to the OV principle for sentence-building: the predicate (either the verb or the nominal predicate) being the only necessary and quite sufficient constituent of a grammatically complete sentence, modifying elements such as objects, adverbials for time and place, and even subject are introduced, attaching to the main constituent of the sentence, the predicate, rather in the manner in which branches of a tree are attached to a tree trunk. The manner in which they modify the "trunk", the predicate, or in which they relate to it, is specified by their "case". In this language, nominalization is minimum; it is the nominal elements -- especially the subject nominal -- that are "predicated" to the predicate, rather than the other way round, as in modern IE SVO languages. Consciousness is, at this stage of compactness, quality-oriented; its differentiation will soon result in the shift in orientation from quality to quantity, whose manifestation in language structure is represented by the constitution of substantives, especially of the subject, to which the predicate is now "predicat-ed", as in modern SVO languages -- a reversal of the relationship formerly holding between the nominal "subject", (where there is any) and the dominant predicate.

Lehmann recognizes the un-importance of the "subject" in PIE:

* the origin of
the possibility
of propositional
logic (AEIO)

"The simple sentence of PIE may then be expected to consist of a verb and, depending on the lexical characteristics of the verb, one or more objects in addition. A subject... would be optional, not mandatory... It is the influence of Western logic... that has led linguists to assume for the simple sentence pattern of language a structure consisting of subject and predicate" (p.40)

His Latin example illustrates the "predication" of the "subject" -- so called and so constituted only from the viewpoint of the nominative/accusative framework, and which it would be better to describe as the "agent", since within the framework of this exemplary sentence the "subject" remains an entity as yet undifferentiated -- to the "predicate", here the verb:

miseret, pudet, taedet
"It makes one pitiful, ashamed, bored."

"These verbs may be accompanied by one or more nouns, as in Cicero's Oration for Milo 34, 92 (Hale-Buck 1903: 186-87):

eorum nos miseret
of them us it-makes-pitiful/there-is-pity
"we feel pity for them."

The genitives in such impersonal sentences, like the accusatives, have meanings which are determined by the functions of these cases, and they cannot be passed as "governed" by the impersonal verb... In PIE verbs could be supplemented by one or more nominal elements, in accordance with the lexical properties of the verbs in question. Evidence for this assumption is found in dialects as late as Old High German, as in the following example...

thes ganges thih nirthruzzi
of-the way you may-there-not-be-weariness
"Do not let yourself be wearied of the way"

In this sentence the accusative *thih* cannot be taken as object of the impersonal verb *irthriazan*, but, like the genitive *ganges*, must be interpreted on the basis of the inherent meaning of the case."
 (p.41)

The predication of the retrospectively constituted "subject" to the nominal predicate can be illustrated by the following simple examples of "possessive use of Dative", one from modern Persian (Farsi) and the other from classical Greek:

(دو پسر اورا هستند)
 do pesar ou-ra hastand
 two boy he-DAT are
 "he has two boys"

ἔστιν αὐτῷ παῖς τις ὀνόματι Theseus
 is to-him boy certain by-the-name Theseus
 "he has a boy by the name of Theseus"

In these two examples what is in the nominative/accusative framework the "predicate" ("has two boys") is the dominant constituent of the sentence, and what is there the "subject" is here "predicated" to that constituent. Another example may be extracted from Plato (*Phaedo*,)

*
 ἐκ πάντων τῶν εἰρημένων τάδε ἡμῖν συμβαίνει, τῷ μὲν θεῷ
 καὶ ἀθανάτῳ... ὁμοιότατον εἶναι ψυχῇ, τῷ δὲ ἀνθρωπίνῳ
 καὶ θνητῷ... ὁμοιότατον αὖ εἶναι σῶμα.

the rendering of which in the nominative/accusative language takes (more naturally) the inverse form: "we have learned from what has been said that the soul is most similar to the divine..." That which is learned, the predicate in the nominative/accusative

framework (i.e. in the translation), is again that to which what is in this framework the subject is predicated.

The differentiation of this predicate-central sentence pattern, which results in the inverse forms, such as found in the translations, of the nominative/accusative pattern, very likely underlies the shift from ergativity to nominative/accusative. In an ergative language the "predicate" is the dominant constituent of the sentence, and the agent is consequently predicat-ed to it: hence it takes something like the Dative/Genitive case. (7)

The emergence of the subjective quality of IE verbs through differentiation:

The centrality of the predicate reflects a type of consciousness concerned with quality, with the "flow" of phenomenon understood qualitatively at the expense of its quantitative features. But consciousness soon differentiates the qualitative phenomenon into a quantitative substantive. This is reflected in the differentiation of the nominal (substantive) subject implicit in the verbal (qualitative) predicate, the first step of which consists in the nominalization of the verbal predicate, which is in turn expressed by the domination of the actor-indicating pronominal suffix over the entire verbal complex: the complex of qualifiers suffixed to the verbal root coalesces into a pronominal whole and inaugurates the inflexional stage of IE. Continued differentiation then results in the complete separation of the pronominal element from the verbal complex and its reconstitution as the subject pronoun, which, having been differentiated, becomes now the necessary and dominant constituent of the sentence to which the

predicate is subordinated. At this stage, where the nominalization (or differentiation) of language has been completed, remnants of the older system are re-aligned with the new nominal pattern to produce such inexplicable sentence pattern as French "il pluit" from the older Latin "pluit", where the antecedent-less pronoun is introduced to fit the old pattern into the new nominal system. (c.f. Lehmann's comment, p. 40; the pronoun seems to have been added even where un-necessary: e.g. ἀνάγκη αὐτοῖς χρῆσθαι where the subject-infinitive is postponed for emphasis ["to use these [is] necessary"] differentiates into "it is necessary to use these.") It is in thus a manner that the OV synthetic PIE language has differentiated into the modern SVO analytic system, most prominently in the Romance family -- the major site of differentiation in Indo-European, the other, more problematic and probably incomplete differentiation having occurred in Indo-Iranian, the case of Persian.

Two major aspects of the differentiation of language have thus far been explicated: the precedence of the principal element in relation to its modifier(s), and the emergence of the nominal quality of the language, resulting in a subject-predicate or subject-object binary opposition. A third aspect is the replacement of the synthetic means of expression by the analytic, paraphrastic constructions. For example the gradual loss of the middle voice as in: Koine Greek (which is already somewhat more differentiated than Attic Greek) ἀπαρνησάσθω ἑαυτὸν "let him deny himself" (Matthew 16:24; Lehmann gives Luke 9:23 [p.191]); in German and French, without middle inflection at all (*sich entscheiden*, *se décider*) and

in English, without even the distinction of a reflexive pronoun (as in the translation above). Lehmann correlated the analytical, pronominal means of expression that have come to replace the synthetic expressions of middle voice with the SVO typology ("the categories for reflexivity and reciprocity are commonly expressed with verbal affixes in OV, and also in VSO languages. Only in SVO languages can we expect to find pronominal forms for use in expressing these categories. The recognition that these are Q categories expressed in this way permits us to account for the IE middle inflection and for the development of pronominal means of expression as dialects came to be SVO in structure. [p.126-7]). But in accordance with the framework (of differentiation) proposed here, the correlation of SVO typology with pronominal reflexivity in particular and with analytic constructions in place of synthetic means in general is to be understood by their both reflecting the process of differentiation.

As noted, the other major site of differentiation of language within the Eurasiatic field occurs in Sino-Tibetan, in Chinese. (Note that an extremely important language group, the Afro-Asiatic, in which the historically important Semitic and "Hamito" languages are located, is excluded from consideration here; hence there are "two" sites.) By the time of classical Chinese (500 BC) the language had already shifted from OV to VO (8); as a matter of principle, or rather in accordance with the framework of differentiation proposed here, an isolating SVO language such as modern Chinese, with every set of meaning expressed paraphrastically, cannot be "primitive", but must have instead

undergone differentiation to reach its present isolating state. Failure on the part of the nineteenth-century German philologists to recognize this fact must have lain, I suppose, in their inadequate appreciation of the complexity of the paraphrastic constructions in Chinese, which reflects the high degree of differentiation of meaning attendant upon modern differentiated languages.

The contemporary state of Chinese language displays, however, a mixture of VO and OV characteristics, and has undergone either an incomplete differentiation (a differentiation thwarted at some point or at some level) or has taken up a different path of differentiation than the western IE group (e.g. the western Romance group). I highly suspect that one IE language -- Persian -- with its mixture of OV and VO characteristics (which is, curiously enough, the inverse of the mixture in Chinese: modern Persian (Farsi) has sentence-final position for verbs, at least in formal and written discursive style, but everything else in the VO type: genitives, adjectives and relatives in post-nominal position, prepositions, etc.; whereas in modern Chinese verb precedes its object(s), everything else however following OV typology: genitives, adjectives and relatives in pre-nominal position; though for the most part prepositions prevail) has reached its present state through the same path of differentiation -- incomplete or else differentiation of a different sort -- as the Chinese language. The very possible incomplete differentiation of the Chinese language such as is suggested by the juxtaposition in it of the OV characteristics with the verb-object pattern that

distinguishes it from its Tibetan-Burman relatives, gains greater luminosity when the language is placed, for comparison, by the side of German, which regains OV patterns for its subordinate clauses and phrases during 1500 AD (Lehmann, p.246); e.g. the placement of adverbials in both languages:

Das Weib zum Beispiel ist rauchsüchtig:
das ist in seiner Schwäche bedingt.

-- F. Nietzsche, *Ecce Homo* (9)

its Chinese translation:

女人的復仇性是 在她的軟弱中所成立的
woman GEN revenge-seeking quality is in the GEN weak-interior formed Ptc.

* "the revenge-seeking quality of woman is formed in [the interior of] her weakness"

again:

Ich bin schon vom Arzt geprüft geworden

its Chinese translation:

我已經被醫生檢查過了
I already by doctor examine[d] Ptc. Ptc. [expressing perfection]

* The Chinese sentences follow the SVO pattern in its basic structure, as do the German sentences: subject -- copula (when needed) -- adjective (phrase); but OV pattern subsists, in both languages, in the secondary level, that of the subordinate, modifying, (in this case predicative) adjectival phrase: "conditioned/formed in her weakness" is the modifying element in the sentence "the woman's revengefulness is conditioned in her weakness"; hence the principal element within this structure of the secondary level, "conditioned", is post-posed after its modifier, the locative adverbial "in her weakness". (Similarly, *geworden* =

the principal element in the predicative adjectival phrase; *geprüft* modifies it, and is itself modified by *vom Arzt*; the German predicative adjectival hence has the canonical OV "from the least essential to the most": which holds also in its Chinese counterpart: by doctor -- examine[d] -- PERFECTION.) Supposing that the word-order pattern for such secondary structures as indicated above in Chinese did not arise from external influences, it would be indication of the penetration of differentiation only to the primary level of sentence, but not yet to the secondary level, such as the level of predicative modifiers as in above, or as the level of (attributive) nominal modifiers.

*
(attributive
adjective,
genitive,
& relative)

NOTES

1. Eric Voegelin, 1957. *Order and History*, vol 2: *The World of the Polis*. Louisiana State University Press.

2. Mircea Eliade, 1976. *Histoire des Croyances et des Idées religieuses*, 1. *De l'âge de la pierre aux mystère d'Eleusis*. Editions Payot.

3. Before this cycle there may have been another that led to the beginning state of the current cycle; and before that possible earlier cycle, maybe another...

4. Merritt Ruhlen, 1994. *The Origin of Language: tracing the evolution of the mother tongue*. John Wiley and Sons, Inc.

5. To use the expression in *Les Langues du Monde* (ed. A Meillet et Marcel Cohen, 1952.) "[regarding langues turques, mongoles, et tOUNGOUZES] Ordre des mots dans la subordination -- souvent l'inverse du français, il s'inspire du principe suivant: tout élément secondaire (spécificateur) précède l'élément principal" [p.329] which summarizes in one sentence the general principle by which the compact consciousness orders the elements of its discourse.

6. Again: l'élément principal précédant l'élément secondaire ou spécificateur.

7. The issue of ergativity in PIE will not be taken up here. Lehmann did not suppose ergativity for PIE; it is however suggested for PIE by W.R. Schmalstieg (*Indo-European Linguistics: A New Synthesis*. Pennsylvania State University Press, 1980) and Kenneth Shields, Jr. (*Indo-European Noun Inflection: A Developmental History*. Pennsylvania State University Press, 1982). The ideas contained in these two works have not yet been reviewed thoroughly enough to be incorporated in the present framework.

8. e.g. Nicholas C. Bodman, "Proto-Chinese and Sino-Tibetan: Data towards Establishing the Nature of the Relationship," in Frans van Coetsem and Linda R. Waugh, eds., *Contributions to Historical Linguistics: Issues and Materials*. Leiden, 1980: "the ordering of subject-verb-object holds true of Chinese from the early oracle bone texts, the only important exception being that in the early text the ordering of verb and object is reversed when the verb is negated and the object is a pronoun. The order SOV is general in all TB languages except Karen and Maru and holds true for all objects, not merely pronouns. It is possible that the O[ld] C[hinese] SOV ordering with pronoun objects in negation is a conservative feature." [p.44]